TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : CP-RW-2023-04-27-40 **Date: 14-07-22**

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 12-07-22

Type of Mix : DBM-Plant (Dense Bituminous Macadam)

Date of Test : 12-07-22

Weight of Sample : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10 (grading -2)
37.5	0	0	0	100	100
26.5	250	250	5.00	95.00	90-100
19	350	600	12.00	88.00	71-95
13.2	450	1050	21.00	79.00	56-80
4.75	1750	2800	56.00	44.00	38-54
2.36	400	3200	64.00	36.00	28-42
0.3	1350	4550	91.00	9.00	7-21
0.075	250	4800	96.00	4.00	2-8
PAN	200	5000	0.00	0	0

* The results obtained are satisfactory as per standard requirements.

Note:-
The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
★R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR DENSE BITUMINOUS MACADAM

Lab ID	:	**CP-RW-2023-04-27-40** **Date: 15-07-22**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	12-07-22
Type of Mix	:	DBM (Dense Bituminous Macadam)
Date of Test	:	12-07-22

Table 500-6 : Physical Requirements fo Coarse Aggregate for Dense Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	8.0	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	14.0		
Strength	Aggregate Impact Value	24.0	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.61	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.28	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TESTS RESULTS ON STABILITY OF MIX

Lab ID : **CP-RW-2023-04-27-40** **Date: 15-07-22**

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Source of Sample : Hot Mix Plant, Bangalore

Sample Condition : Satisfactory

Date of Receipt : 12-07-22

Type of Mix : DBM (Dense Bituminous Mecadam)

Date of Test : 12-07-22

The results of the tests conducted on the Dense Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.54	11.68	9KN(Min)
2	Marshal flow at 60°C, mm	3.62	3.78	2-4
3	Percent air Voids	4.72	4.52	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.62	14.88	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	72.85	65-75
6	Density, g/cc	2.41	2.43	–

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID : **CP-RW-2023-04-27-40** **Date: 15-07-22**

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 12-07-22

Type of Mix : DBM(Dense Bitumnous Macadam)

Date of Test : 12-07-22

Type of Binder : 60/70

% of Binder Used : 5.0%

Weight of Aggregate : 200.0 gm

Weight of Binder : 10.0 gm

Temperature of water bath : 40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	99.0	1.0	98.5	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

Note:-
The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Asst. Executive Engineer
Project Division
Zone

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Date: 16-07-22

Lab ID	:	**CP-RW-2023-04-27-40**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	15-07-22
Type of Mix	:	DBM (Dense Bituminous Macadam) - P & T L/O Main Road
Date of Test	:	15-07-22

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	479	480.5
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	8
5	Increase in weight of Filter Paper	W5=W4-W3	2	4
6	Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	4.6	4.70
7	Average percentage	%	4.65	

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

Lab ID : CP-RW-2023-04-27-40 **Date: 16-07-22**

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 479

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0.0	100.0	100
26.5	20	20	4.2	95.8	90-100
19	92	112	23.4	76.6	71-95
13.2	81	193	40.3	59.7	56-80
4.75	85	278	58.0	42.0	38-54
2.36	57	335	69.9	30.1	28-42
0.3	95	430	89.8	10.2	7-21
0.075	25	455	95.0	5.0	2-8

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 480.5

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0.0	100.0	100
26.5	25	25	5.2	94.8	90-100
19	93	118	24.6	75.4	71-95
13.2	74	192	40.0	60.0	56-80
4.75	82	274	57.0	43.0	38-54
2.36	56	330	68.7	31.3	28-42
0.3	83	413	86.0	14.0	7-21
0.075	32	445	92.6	7.4	2-8

* The results obtained are satisfactory as per standard requirements.

Note:-
The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2023-04-27-40** **Date: 02-04-23**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	31-03-23
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of Test	:	31-03-23
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	90	90	1.8	98.2	90-100
9.5	698	788	15.8	84.2	70-88
4.75	900	1688	33.8	66.2	53-71
2.36	581	2269	45.4	54.6	42-58
1.18	487	2756	55.1	44.9	34-48
0.6	493	3249	65.0	35.0	26-38
0.3	536	3785	75.7	24.3	18-28
0.15	462	4247	84.9	15.1	12-20
0.075	352	4599	92.0	8.0	4-10
PAN	401	5000	100	0.0	0

* The results obtained are satisfactory as per standard requirements.

Note:-
The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2023-04-27-40** **Date: 03-04-23**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	31-03-23
Type of Mix	:	BC(Bitumenous Concrete)
Date of Test	:	31-03-23

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm

Temperature of water bath : 40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

Note:-
The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Date: 03-04-23

Lab ID	:	**CP-RW-2023-04-27-40**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	31-03-23
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	31-03-23

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	9.9	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	10.3		IS:2386 Part IV
Strength	Aggregate Impact Value	22.1	Maximum 24%	IS:2386 Part III
Specific gravity	Specific gravity	2.65	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.2	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro BANGALORE Sig..... Date.....

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2023-04-27-40** **Date: 03-04-23**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	31-03-23
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	31-03-23

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.14	11.13	10KN(min)
2	Marshal flow at 60°C, mm	3.52	3.51	2-4
3	Percent air Voids	4.82	4.83	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
5	Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
6	Density, g/cc	2.25	2.26	–

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6680@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : **CP-RW-2023-04-27-40** **Date: 06-04-23**

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Sample Condition : Satisfactory

Date of Receipt : 05-04-23

Type of Mix : Tack coat

Date of Test : 05-04-23

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.805	0.773
5	Weight of tack Coat (d=c-b)	Kg	0.025	0.025
6	Rate of spread of tack coat	Kg/sq.m	0.278	0.278
7	Average	Kg/sq.m	0.278	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : **CP-RW-2023-04-27-40** **Date: 29-07-22**

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Sample Condition : Satisfactory

Date of Receipt : 28-07-22

Type of Mix : Tack coat

Date of Test : 28-07-22

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.

All information Furnished by Agency/ Representative

Any correction in the report will make this report invalid.

This report without prior written approval should not be reproduced or published in full or part.

Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2023-04-27-40** **Date: 10-07-22**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer's Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-07-22
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-2021, IS: 1202-1220(1978) (Reaffirmed-2019)
Date of Test	:	08-07-22

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**65**	Min 45mm
2	Softening Point, °C	**50.4**	Min. 47°C
3	Ductility, cm	**100**	Min. 40cm
4	Flash point, °C	**310**	Min. 220°C
	Fire point, °C	**322**	

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP Bangalore - 92

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2023-04-27-40** **Date: 29-03-23**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Sarajpalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer's Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	27-03-23
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-2021, IS: 1202-1220(1978) (Reaffirmed-2019)
Date of Test	:	27-03-23

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	63	Min 45mm
2	Softening Point, °C	51.2	Min. 47°C
3	Ductility, cm	99	Min. 40cm
4	Flash point, °C	312	Min. 220°C
	Fire point, °C	322	

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL PRO Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore-92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO

AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017

4, 7TH MAIN MALLESWARAM, BANGALORE -3

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID	:	**CP-RW-2023-04-27-40**	**Date: 06-04-23**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.	
Address	:	Project Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06	
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72	
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21	
Sample Condition	:	Satisfactory	
Date of Receipt	:	05-04-23	
Type of Mix	:	Tack coat	
Date of Test	:	05-04-23	

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.

All information Furnished by Agency/ Representative

Any correction in the report will make this report invalid.

This report without prior written approval should not be reproduced or published in full or part.

Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : **CP-RW-2023-04-27-40** **Date: 06-04-23**

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Sample Condition : Satisfactory

Date of Receipt : 05-04-23

Type of Mix : Tack coat

Date of Test : 05-04-23

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.772
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.024
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.267
7	Average	Kg/sq.m	0.261	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 63

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Date: 06-04-23

Lab ID	:	**CP-RW-2023-04-27-40**
Customer	:	Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.
Address	:	Project Sub Division, BBMP, Bangalore.
Project Name	:	Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06
Agency	:	Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72
Customer Reference	:	EE(Project)/Ynk Zone/WO/143/2020-21
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	05-04-23
Type of Mix	:	BC (Bituminous Concrete) - Abubakkar Masjid Road
Date of Test	:	05-04-23

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	475	474.5
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	6
5	Increase in weight of Filter Paper	W5=W4-W3	2	2
6	Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	5.40	5.50
7	Average percentage	%	5.5	

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

Lab ID : **CP-RW-2023-04-27-40** **Date: 06-04-23**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 475

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	15	15	3.2	96.8	90-100
9.5	85	100	21.1	78.9	70-88
4.75	95	195	41.1	58.9	53-71
2.36	58	253	53.3	46.7	42-58
1.18	36	289	60.8	39.2	34-48
0.6	8	297	62.5	37.5	26-38
0.3	53	350	73.7	26.3	18-28
0.15	48	398	83.8	16.2	12-20
0.075	45	443	93.3	6.7	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 474.5

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	3	3	0.6	99.4	90-100
9.5	56	59	12.4	87.6	70-88
4.75	121	180	37.9	62.1	53-71
2.36	73	253	53.3	46.7	42-58
1.18	39	292	61.5	38.5	34-48
0.6	12	304	64.1	35.9	26-38
0.3	48	352	74.2	25.8	18-28
0.15	40	392	82.6	17.4	12-20
0.075	51	443	93.4	6.6	4-10

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-RW-2023-04-27-40**

Date: 06-04-23

Customer : Assistant Executive Engineer, Project Sub Division, BBMP, Bangalore.

Address : Project Sub Division, BBMP, Bangalore.

Project Name : Improvements, Restoration to roads and drains at Dasarahalli, Saraipalya and Rachenahalli surrounding areas in ward no.06

Agency : Sri. Puttaswamy Gowda, #36/K, 1st Cross, 3rd Main, VHBCS, nagarbhavi, 9th Block, Bangalore-72

Customer Reference : EE(Project)/Ynk Zone/WO/143/2020-21

Source of Sample : Sample supplied by Agency

Date of Receipt : 05-04-23

Type of Mix : BC (Bituminous Concrete) - Balloon Factory Road

Date of Test : 05-04-23

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	474.4	474.5
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	6
5	Increase in weight of Filter Paper	W5=W4-W3	2	2
6	Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	5.52	5.50
7	Average percentage	%	5.5	

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP Bangalore - 92

Scanned by TapScanner

Lab ID : **CP-RW-2023-04-27-40**

Date: 06-04-23

Total Weight of the Sample(gm) : 474.4

AFTER EXTRACTION - Trail-1

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	14	14	3.0	97.0	90-100
9.5	85	99	20.9	79.1	70-88
4.75	95	194	40.9	59.1	53-71
2.36	58	252	53.1	46.9	42-58
1.18	36	288	60.7	39.3	34-48
0.6	12	300	63.2	36.8	26-38
0.3	53	353	74.4	25.6	18-28
0.15	50	403	84.9	15.1	12-20
0.075	46	449	94.6	5.4	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 474.5

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	5	5	1.1	98.9	90-100
9.5	56	61	12.9	87.1	70-88
4.75	121	182	38.4	61.6	53-71
2.36	73	255	53.7	46.3	42-58
1.18	39	294	62.0	38.0	34-48
0.6	12	306	64.5	35.5	26-38
0.3	48	354	74.6	25.4	18-28
0.15	40	394	83.0	17.0	12-20
0.075	51	445	93.8	6.2	4-10

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Agency/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Scanned by TapScanner